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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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ERICSSON INC.
6300 LEGACY DRIVE
M/S EVR C11
PLANO, TX 75024

EXAMINER	
SCHEIBEL, ROBERT C	

ART UNIT	PAPER NUMBER
2616	

DATE MAILED: 07/20/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/742,857	FONDEN ET AL.	
	Examiner	Art Unit	
	Robert C. Scheibel	2616	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *22 May 2006*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1,2,4-12,14,16-18 and 21-23* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☐ Claim(s) *1,2,4-12,14,16-18 and 21-23* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

- Examiner acknowledges the receipt of the Request for Continued Examination (RCE) received 5/22/2006.
- Claims 1, 11, 12, 14, 16, 18, and 22 are currently amended.
- Claims 3, 13, 15, 19, and 20 have been cancelled.
- Claims 1, 2, 4-12, 14, 16-18, and 21-23 are currently pending.

Response to Arguments

1. Applicant's arguments, see pages 10-11, filed 5/22/2006, with respect to the rejection of claims 1-8, 11-12, and 18 under 35 U.S.C. 103(a) have been fully considered but they are not persuasive.

In the first paragraph of this section, Applicant summarizes the rejection. In the second paragraph, Applicant argues that the combination of Jin and RFC 2401 does not disclose expressly the limitations that the data field specifying the handling of the packet is set according to both the parameters from the user's subscription and information specified on a higher layer than that evaluated by the interior nodes. However, Examiner respectfully disagrees. The previous rejection of claim 1 clearly indicated that the user's subscription is used in Jin to determine how to set the ToS/DS field in the packet. Further, the information from the AAA server is acquired by the edge node using a higher layer (RADIUS which runs on top of UDP) than the IP packet layer. In the next paragraph, Applicant argues that claims 2 and 4-10 should be allowable as they depend from claim 1. For reasons stated above, claim 1 is not allowable and therefore, this

argument does not apply; these claims have been rejected in a manner similar to the last action.

Regarding claim 11, Applicant has amended the claim language such that the edge node is now called a Serving GPRS Service Node (SGSN). Applicant argues that the combination of Jin and RFC 2401 does not teach an SGSN. However, as the SSG of Jin (as modified by RFC 2401) is not distinguishable from the SGSN as defined by the limitations ***in the claims***, Examiner interprets the SSG of Jin as functionally equivalent to the SGSN ***as claimed***. Applicant must distinguish, in the claims, the operation of the SGSN from that of the SSN in order to overcome the present rejection. Further, in response to applicant's arguments, the recitation that the SGSN is "operating in a UMTS Terrestrial Radio Network (UTRAN)" has not been given patentable weight because the recitation occurs in the preamble. A preamble is generally not accorded any patentable weight where it merely recites the purpose of a process or the intended use of a structure, and where the body of the claim does not depend on the preamble for completeness but, instead, the process steps or structural limitations are able to stand alone. See *In re Hirao*, 535 F.2d 67, 190 USPQ 15 (CCPA 1976) and *Kropa v. Robie*, 187 F.2d 150, 152, 88 USPQ 478, 481 (CCPA 1951). In the next paragraph, Applicant argues that claims 12 and 14 should be allowable as they depend from claim 11. For reasons stated above, claim 11 is not allowable and therefore, this argument does not apply; these claims have been rejected in a manner similar to the last action.

Regarding claim 18, Applicant has amended this claim with the amendments from both claims 1 and 11 as indicated above. Applicant has argued similarly and Examiner disagrees for the reasons stated above.

In the next two paragraphs, Applicant argues that claims 9 and 14 should be allowable because they depend from claims 1 and 11, respectively. For reasons stated above, claims 1 and 11 are not allowable and therefore, this argument does not apply; these claims have been rejected in a manner similar to the last action.

2. Applicant's arguments, see pages 12-13, filed 5/22/2006, with respect to the rejection of claims 10, 16, 17 and 21-23 have been fully considered but they are not persuasive.

Applicant has argued that the DiPlacido does not disclose the limitations not taught by Jin and RFC 2401. Specifically, Applicant states that the buffer control method of DiPlacido does not disclose the means for selecting a quality of service level and forwarding data packets. Examiner respectfully disagrees. The present claim language is broad and DiPlacido discloses these claim limitations. DiPlacido uses the buffer level to determine the resource availability. If the device can provide the highest quality of service it is capable of (as measured by the buffer level being below the first watermark), all frames are stored (and subsequently forwarded) without regard to the priority of the frame. When the device determines that it cannot process packets (frames) at the highest quality of service level (as measured by the buffer level increasing past the watermark), the device must evaluate the priority of the frames in order to determine which frames to discard. This reads on the present claim language when combined with Jin. As such, the previous rejection is maintained herein. Applicant is urged to more clearly describe the present invention in the claim language in order to overcome the present rejection.

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

2. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

3. Claims **1-2, 4-8, 11-12, and 18** are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent 6,917,617 to Jin et al in view of RFC 2401 "Security Architecture for the Internet Protocol" to S. Kent et al.

Regarding claims **1**, Jin et al discloses:

A method of providing a defined quality of service (see title and abstract) in a packet switched communication system having a plurality of interconnected nodes (the SSG and the Internet of figure 3) for forwarding of data packets, wherein the plurality of interconnected nodes includes an edge node (the SSG of figure 3; see lines 36-41 of column 4 for a description of how the SSG acts as an edge router) and a plurality of interior nodes (the nodes comprising the internet), wherein the edge node connects to user

equipment (see figure 3) or to a further communication system, processes data packets having a data field specifying a handling of the packets (see lines 41-43 of column 4 for example), and forwards the processed data packets to the interior nodes (see lines 36-41 of column 4), wherein the plurality of interior nodes form a core network through which data packets received from the edge node are forwarded toward a destination (well-known that the internet is comprised of a plurality of nodes and that the packets have a destination), said method comprising: connecting the edge node to a data base (the AAA server of figure 3) that contains a user subscription (the user's service profile on the AAA – see lines 31-34 of column 4) for an identified user specifying a quality of service for the identified user (see lines 34-37 of column 4); providing the edge node with quality parameters from the identified user's subscription (see lines 34-37 of column 4); receiving in the edge node, a data packet from the identified user, said packet being received on a first protocol layer (the communications discussed in lines 37-41 of column 4 are packet communications and thus the edge router (SSG) receives a packet); processing in the edge node, the received data packet for the identified user according to a protocol stack, wherein the data field specifying the handling of the packet is set according to the quality parameters from the identified user's subscription (see lines 41-43 of column 4) and according to information specified on a layer in the protocol stack (the information is retrieved from the AAA server using RADIUS which runs on top of UDP) of the edge node that is different from a lower layer evaluated by the interior nodes for handling the packets (the packets are handled by the nodes by the IP layer); and forwarding the processed data packets by the interior nodes in the core network by performing a differentiated handling of the packets according to the data field set by the

edge node (clearly, this is the point of the reference as evidences by the title; see also line 61 of column 1 to line 3 of column 2 which clearly indicates that the qos is set so that the internet will provide the appropriate level of service). Similarly, Jin discloses the analogous limitations of claims 11 and 18. Further, the limitation that the edge node is called an SGSN in claims 11 and 18 is not given patentable weight as the SSG of Jin (as modified by RFC 2401) is not distinguishable from the SGSN as defined by the limitations ***in the claims***. Examiner interprets the SSG of Jin as functionally equivalent to the SGSN ***as claimed***.

Jin does not disclose expressly the limitation of encapsulating the incoming data packet with the processed data field into a data packet on a lower protocol layer for the routing of the data packet or the limitation that the interior nodes evaluate the data field at the lower layer and route the packets according to the quality parameters specified in the data field.

However, it is well known in the art to encapsulate IP packets in other IP packets for routing through a core network. One example of this is provided in Kent which discloses creating a tunnel for security purposes (a VPN, for example). See section 5.1.2 and 5.1.2.1 on pages 31-32, for example. Kent discusses the "inner IP header" which is the first protocol layer and the "outer IP head" which is the lower protocol layer. This section (see line 3 of section 5.1.2 as an example) discloses the step of encapsulating the incoming data packet with the processed data field into a data packet on a lower protocol layer for the routing of the data packet. Further, Kent indicates that the TOS field (also well known as the differentiated services octet) is copied from the inner header when creating the outer header. Thus, the value provided by the edge router (to the first

protocol layer or inner header) before the encapsulation is placed in the outer header. The outer header is clearly what will be used to route the packets in the core network and thus the limitation that the interior nodes evaluate the data field at the lower layer and route the packets according to the quality parameters specified in the data field is disclosed by the use of such a tunnel.

Jin and Kent are analogous art because they are from the same field of endeavor of IP routing and networking. At the time of the invention it would have been obvious to a person of ordinary skill in the art to modify Jin by adding security tunneling to the routers. The motivation for doing so would have been to provide secure communications for the packets of Jin by affording protection to IP traffic as suggested by Kent in the last paragraph of page 5. Therefore, it would have been obvious to combine Kent with Jin for the benefit of affording protection to IP traffic to obtain the invention as specified in claims 1, 11, and 18.

Regarding claim **2**, Jin discloses the limitation that the step of processing the data packet in the edge node includes changing the data field from a previously specified quality of service to a quality of service according to the quality parameters from the identified user's subscription in lines 41-43 of column 4.

Regarding claim **4**, Jin discloses the limitation that the data field is changed in response to a traffic load in the system is implied from line 61 of column 1 to line 3 of column 2.

Regarding claim **5**, Jin discloses the limitation that the step of connecting the edge node to a data base includes connecting the edge node to a second node that connects to the data base, wherein the quality parameters from the identified user's subscription are

forwarded from the second node to the edge node as follows. Jin indicates in lines 65-67 of column 3 that the AAA servers are disposed in various locations in the network and it is clear from the passage in lines 48-50 of column 4 that a roaming user can still connect indirectly (i.e. via one or more other nodes) to an AAA server and the method will still work.

Regarding claim **6**, Jin discloses the limitation that the data packets are IP packets and the field is the DS field in lines 41-43 of column 4 and figure 1B.

Regarding claim 7, Jin discloses the limitation that the unspecified bits in the differentiated services field are used to indicate quality of service in lines 4-7 of column 2 which indicates that other bits of the packet may be used instead of the DS precedence bits.

Regarding claim **8**, Jin discloses the limitation that the step of setting the data field specifying the handling of the packet according to the quality parameters from the user's subscription includes setting a plurality of bits that specify per hop behavior according to the user's subscription in lines 41-43 of column 4. It is well known that the TOS field specifies the per-hop behavior of the packet.

Regarding claim **12**, Jin discloses the limitation the data packets are processed according to a protocol stack and the step of processing the data packet in the edge node includes setting the data field according to information specified on a layer in the protocol stack (the information is retrieved from the AAA server using RADIUS which runs on top of UDP) of the edge node that is different from the layer evaluated by the interior nodes for handling the packets (the packets are handled by the nodes by the IP layer).

4. Claim **9** is rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent 6,917,617 to Jin et al in view of RFC 2401 "Security Architecture for the Internet Protocol" to S. Kent et al and in further view of "Mobile IP and Wide Area Wireless Data" by La Porta et al.

Regarding claim **9**, the combination of Jin and Kent discloses the limitations of parent claim 1 as described in the rejection above. Jin, modified as above, does not disclose expressly the limitation of claim 9 that the database is a location register. However, it is well known in the art that the functions of an HLR and AAA server are similar and tend to be implemented as the same network element. For example, La Porta discloses the limitation of the AAA server (in Jin) being an HLR. See paragraphs 3-5 of section IV A on page 1531 of La Porta. Jin, modified as above, and La Porta are analogous art because they are from same field of endeavor of IP networking and the placement of the AAA server within the network. At the time of the invention it would have been obvious to a person of ordinary skill in the art to implement the AAA server of Jin in an HLR server. This would clearly be a typical implementation when the applying the invention of Jin, modified as above, to wireless networking as discussed in La Porta. The motivation for doing so would have been reduce the burden of distributing the set of authentication keys in the network as suggested by La Porta in the third paragraph of section IV A on page 1531. Therefore, it would have been obvious to combine La Porta with Jin, modified as above, for the benefit of minimizing the burden of the distribution of authentication keys to obtain the invention as specified in claim 9.

5. Claim **14** are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent 6,917,617 to Jin et al in view of RFC 2401 "Security Architecture for the Internet Protocol" to S. Kent et al and in further view of U.S. Patent 6,661,782 to Mustajarvi et al.

Jin, as modified by Kent above, discloses all the limitations of the parent claim 11 as discussed in the rejection under 35 U.S.C. 102(e) above. Jin, as modified above, does not disclose expressly the limitations of claim 14. Mustajarvi discloses a network in Figure 1, which has an HLR (home location register) as a database containing subscriber data (see lines 52-55 of column 8 as well), and edge nodes BSC1 and SGSN1, which are at the edge of the radio and the backbone networks, respectively. This network structure discloses the limitation of the edge node being both a control node (as emphasized in lines 8-12 of column 8) and a node for processing packets (it forwards packets to the core network of Figure 1). Jin, as modified above, and Mustajarvi are analogous art because they are from the same field of endeavor of packet data networks. At the time of the invention it would have been obvious to a person of ordinary skill in the art to use the invention of Jin, as modified above, in the network structure of Mustajarvi. Jin notes in lines 45-53 of column 5 that the structure presented in the document is for illustrative purposes only and that the invention could easily be applied to many other embodiments. The motivation for applying Jin's invention to the wireless packet data structure of Mustajarvi would have been to apply quality of service to the packets in a wireless packet data network (much the same as the motivation for Jin's invention in the embodiment shown as stated in lines 32-38 of column 2). Therefore, it would have been obvious to combine Mustajarvi with Jin, as modified above, for the benefit of applying quality of

service treatments to flows in a wireless packet data network to obtain the invention as specified in claim 14.

6. Claims **10, 16, 17, and 21-23** are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent 6,917,617 to Jin et al in view of U.S. Patent 6,092,108 to DiPlacido et al.

Regarding claim **16** Jin discloses:

An interior node (the nodes comprising the internet of figure 3) in a packet switched core network (the internet in figure 3) having a plurality of interconnected interior nodes for forwarding of internet protocol data packets that include a differentiated services data field in the internet protocol header specifying a handling of the packets, wherein the differentiated services data field includes a number of unspecified bits, said node comprising: means for receiving the data packets from an edge node (the SSG of figure 3; see lines 36-41 of column 4 for a description of how the SSG acts as an edge router) that sets unspecified bits in the differentiated services data field to indicate a quality of service for the data packets (see lines 41-43 of column 4 which indicate that the data field is set and line 4-7 of column 2 which indicate that bits other than the ToS or DS field can be used, i.e. the unspecified bits); and processing means for performing a differentiated handling of the packets according to the differentiated services data field, where the processing means includes means for evaluating the unspecified bits in the differentiated services field and forwarding the packets according to the unspecified bits is also disclosed in lines 4-17 of column 2 which indicates that these bits are used in the network to properly forward the packets.

Similarly, regarding claim **21**, Jin discloses the limitation of connecting the edge node (the SSG of figure 3; see lines 36-41 of column 4 for a description of how the SSG acts as an edge router) to a data base (the AAA server of figure 3) that contains a user subscription (the user's service profile on the AAA – see lines 31-34 of column 4) for an identified user specifying a quality of service for the user (see lines 34-37 of column 4); processing in the edge node, a data packet for the identified user by setting the data field specifying the handling of the packet according to the quality parameters from the identified user's subscription (see lines 41-43 of column 4); and forwarding the processed data packets by the interior nodes in the core network by performing a differentiated handling of the packets according to the data field set by the edge node (clearly, this is the point of the reference as evidences by the title; see also line 61 of column 1 to line 3 of column 2 which clearly indicates that the qos is set so that the internet will provide the appropriate level of service).

Similarly, regarding claim **22**, Jin discloses means for receiving the data packets from an edge node that sets unspecified bits in the differentiated services data field to indicate a quality of service for the data packets (see lines 41-43 of column 4 which indicate that the data field is set and line 4-7 of column 2 which indicate that bits other than the ToS or DS field can be used, i.e. the unspecified bits); and processing means for performing a differentiated handling of the packets according to the differentiated services data field (see lines 4-17 of column 2 which indicates that these bits are used in the network to properly forward the packets).

Similarly, regarding claim **23**, Jin discloses a data base (the AAA server of figure 3) that contains a user subscription (the user's service profile on the AAA – see lines 31-

34 of column 4) specifying a quality of service for the identified user (see lines 34-37 of column 4); an edge node (the SSG of figure 3; see lines 36-41 of column 4 for a description of how the SSG acts as an edge router) connected to user equipment, the data base, and at least one interior node in the network, said edge node comprising: means for receiving from the data base, quality of service parameters from the identified user's subscription (lines 31-37 of column 4); means for processing a data packet for the identified user by setting a data field specifying the handling of the packet according to the quality parameters from the identified user's subscription (see lines 41-43 of column 4); and means for forwarding the processed data packets from the edge node to the interior nodes (clearly, this is the point of the reference as evidences by the title; see also line 61 of column 1 to line 3 of column 2 which clearly indicates that the qos is set so that the internet will provide the appropriate level of service).

Jin does not disclose expressly the limitations of claims 16, 21, 22, and 23 of determining whether the interior node has sufficient resources to handle a received data packet utilizing a highest quality of service level; forwarding the received data packets utilizing the highest quality of service level without evaluating the unspecified bits in the differentiated services data field, responsive to a determination that the interior node has sufficient resources to handle the received data packet utilizing the highest quality of service level; and evaluating the unspecified bits in the differentiated services data field and forwarding the packets according to the unspecified bits, responsive to a determination that the interior node does not have sufficient resources to handle the received data packet utilizing the highest quality of service level.

DiPlacido discloses the limitations of determining whether the interior node has sufficient resources to handle a received data packet utilizing a highest quality of service level (lines 49-57 of column 3; if the amount of data in the buffer is less than the first water mark, all of the frames can be forwarded, regardless of priority); forwarding the received data packets utilizing the highest quality of service level without evaluating the unspecified bits in the differentiated services data field, responsive to a determination that the interior node has sufficient resources to handle the received data packet utilizing the highest quality of service level (lines 49-57 of column 3; if, as above, the buffer level is less than the first water mark, all frames are forwarded to the application processor (by storing them in the buffer)); and evaluating the unspecified bits in the differentiated services data field and forwarding the packets according to the unspecified bits, responsive to a determination that the interior node does not have sufficient resources to handle the received data packet utilizing the highest quality of service level (lines 49-57 of column 3; if the buffer level is greater than the first water mark, the priority and packet type of the packets must be evaluated as sufficient resources do not exist; the frames are then forwarded according to this priority/packet type).

Jin and DiPlacido are analogous art because they are from the same problem solving area of forwarding data packets based on resource availability and packet priority. At the time of the invention it would have been obvious to a person of ordinary skill in the art to modify Jin by adding water marks or thresholds similar to those disclosed in DiPlacido. The packets would be evaluated and forwarded based on the relative buffer capacity in the edge router and then the unspecified bits in the differentiated services field of the IP packets. The motivation for doing so would have

been to efficiently handle the forwarding of different priority packets without needlessly increasing buffer sizes as suggested by DiPlacido in lines 52-59 of column 1. Therefore, it would have been obvious to combine DiPlacido with Jin for the benefit of efficiently handling the forwarding of different priority packets without needlessly increasing buffer sizes to obtain the invention as specified in claims 16, 21, 22, and 23.

Regarding claims **10 and 17**, the above combination of Jin and DiPlacido discloses the limitation of evaluating the unspecified bits only when the traffic load is above a threshold value. The greater the traffic load, the greater the buffer level in DiPlacido. The priority and packet type is only used when the traffic load is large enough to cause the buffer level to be greater than the first water mark or threshold. Thus, the above combination of Jin and DiPlacido discloses the limitations of claims 10 and 17.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Robert C. Scheibel whose telephone number is 571-272-3169. The examiner can normally be reached on Monday and Thursday from 6:30-5:00 Eastern Time.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Seema S. Rao can be reached on 571-272-3174. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

RCS 7-13-06

Robert C. Scheibel
Examiner
Art Unit 2616

Seema S. Rao 7/15/06

SEEMA S. RAO
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600